Review of Netrarog Hetu according to modern lifestyle.
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ABSTRACT
Prevention of ocular disorders and preservation of ocular health has become essential, as changing lifestyle has resulted in many eye disorders and brought miseries to daily life. Our ancient seers have also given prime importance to eye by considering it as the most vital sense organ among all the sense organs. If the causative factors are not addressed this can lead to more serious diseases. Stopping the causative factor itself is a treatment. Ayurveda found to describe vividly about ocular health and hygiene. Association between such faulty lifestyle measures and subsequent eye diseases are searched and reviewed from different Ayurvedic literature and online sources. Thus assessment was made to invest knowledge of ancient science for fulfilling the growing demand of mankind in new era. When it is assessed the path of application gets flourished as a science. As prevention is better than cure, attempt is made to analyse Netraroga hetus (causative factors of eye diseases ) due to modern lifestyle and made is easy to be understood by everyone to understand and modify lifestyle.

Keywords: Ocular disorders, Faulty lifestyle, Netrarogas, Hetus.

INTRODUCTION
Ayurveda is ancient science of medicine which aims not only in cure of the disease but also prevent human beings from physical, mental, intellectual and spiritual miseries. Among all the sense organs eyes are considered to be very important. According to Acharya Vagbhata – “Man should make consistent efforts to protect eye sight. For a blind person, though he is rich, day and night are equal and entire world seems to be useless.”

चक्षूरक्षायाां सर्वकालां मनुष्यैयवत्नः कर्वव्यो जीविते यावदिच्छा ।
व्यर्थो लोकोऽयां तत्व रत्निदिवानां ।
पुसामन्धानां विद्वानां रतिमाना पिवे विते ॥
(अ. सं .उ १६/२९)

Nidan is a causative factor – if these causative factors are not addressed, it leads to serious disease. Avoiding causative factors it is a treatment. Understanding the causative factor of modern lifestyle will help to analyze disease and plan for treatment of disease. Thus, an attempt is madet o analyze all netra roga hetus to modern lifestyle.
Subtitles like Probable habits, probable dosha-dushti, and probable disease are used to explain each hetu in detail.

**VARIOUS HETUS EXPLAINED BY ACHARYA SUSHRUTA AND ITS ASSESSMENT ACCORDING TO MODERN LIFESTYLE ARE AS FOLLOWS –**

1. **USHNABITAPTASYA JALAPRAVESHATH**
   (immersing in cold water immediately after getting exposed to heat/sun)

   When body is hot, the blood vessels are dilated and the volume of fluids is increased, then if body temperature is suddenly dropped the vessels constrict and the vasculature is damaged. This causes circulatory disturbances which in turn probably affect the mechanism of nutrition and it leads to eye diseases.

   **Probable habits:**
   - Bathing / drinking cold waters immediately after exposure to heat, entering into AC compartment soon after exposure to heat/sun, pouring cold water on head after playing outdoor games.

   **Probable dosha-dushti:** Pitta.
   **Probable disease:** Conjunctivitis, Photo keratitis.

2. **DOOREKSHANATH**
   (Looking at very distant objects regularly for a longer time)

   Looking at very distant objects regularly for a longer time leads to strain produced a ciliary muscles leading to distortion in accommodative capacity of the lens.

   **Probable habits and occupation:**
   - Drivers, shooters, archery, working with Telescopes, Patrolling officers in Armed Forces.

   **Probable Dosha-dushti:** Vata prakopa
   **Probable Diseases:** Hypermetropia, Presbyopia.

3. **SWAPNAVIPARYAYA**
   (Abnormal sleeping habits)

   Abnormal sleeping habits like Diwa swapna and Nishi jagran. Diwa swapna causes Kapha prakopaleading to snigdhata (moistness) and ratrijagran causes Vata and Pitta prakopa leading to rukshata.

   **Probable habits and occupations:**
   - Night shifts, sleeping late night, night out parties.

   **Probable dosha-dushti:** Tridosha
   **Probable diseases:** Stye, Periorbital puffiness, Nystagmus, Dry eye, Hyperaemia.

4. **PRASAKTHASAMRODHANA**
   (Continues weeping for longer duration and for several days)

   Continuous weeping causes excessive stimulation to lacrimal gland by which gland secretes more fluids which washes away all the nutrients and bacteriostatic activity of the Conjunctival sac. Later, the Conjunctival sac and lacrimal apparatus loses the stamina against diseases.

   **Probable dosha-dushti:** Vata.
   **Probable diseases:** Xerosis and diseases of lacrimal apparatus.

5. **KOPA AND SHOKA** (Excessive anger and grief)

   Excessive anger and grief will impact the equilibrium of doshas as Kopa increases Pitta and Shoka increases Vayu. During anxiety attacks, our body gets a rush of Adrenaline resulting in dilated
pupil. When pupils are dilated, blurred vision can be noticed as a reaction to unnecessary extra light entering eye.

**Probable dosha-dushti:** Pitta and Vata.

**Probable diseases:** Subconjunctival Haemorrhage and Vataja Netraroga.

6. KLESHA (Stress)

Stress, pain, trouble vitiates both Shareeraja and Manas doshas leading to eye diseases.

Stress hormones like cortisol are secreted and activation of Hypothalamic Pituitary Adenocorticoïd leads to further Arteriole dilation and venous constriction.

**Probable Dosha-dushti:** Vata.

**Probable diseases:** Central Serous Chorioretinopathy (CSR), Myokemia (Twitching of eyelids), Dry eye, Vascular diseases of Retina.

7. ABHIGHAT (Trauma)

Minute irritating injuries or contusion inquiries or perforating injuries cause a great loss to eye. If proper eye care is not taken blindness follows immediately. Not only eye injury affects eye, also injury to other structures like skull base fracture leads to retro bulbar and Retinal bleeding, Cranium injury leads to Retina and Vitreous imbalance.

**Probable Occupation:** Chemical injuries, Occupational hazards, accidents.

**Probable dosha-dushti:** Tridosha

**Probable disease:** Corneal erosion or perforation, retinal detachment, dislocation of lens, traumatic cataract.

8. ATIMAITHUN (Excessive Sex)

Excessive sex results in the reduction of body tissues (Dhatushaya). The indriyas derive their nutrition from body tissues (Dhatu) and eye will be deprived of nourishment.

**Probable dosha-dushti:** Tridosha.

**Probable diseases:** (HIV) sunken eyes, infective eye diseases, Netrabhishyanda, Cytomegalovirus retinitis.

9. SHUKTHARANALAAMLA NISHEVANA (Alcoholic beverages)

Sukta and aranala are produced by fermentation, have properties opposite to Ojas (immunity) with toxicaacting action.

**Probable habits:** Alcohol, bakery items.

**Probable dosha-dushti:** Pitta and rakta.

**Probable diseases:** Pothaki (Trachoma), Kumbheeka (Chalazion), Cytomegalo Virus Retinitis.

10. KULATTHA – MASHA NISHEVANA (Excessive use of horse gram and black gram)

**Kulattha**

It has properties like laghu, vidahi, kashaya rasa, and katu paka and ushna veerya. Excessive use of Kulattha causes Dhatu kshaya.

**Probable Dosha-dushti:** Tridosha prakopa

**Probable diseases:** Tridoshaj Netraroga

**Masha:** Masha has madhura rasa, madhura vipaka, and guru and snigdha guna.

**Probable habits:** Eating food like idli, dosa, etc. in excess quantity.

**Probable Dosha-dushti:** Kapha Prakopa

**Probable Diseases:** Kaphaj Netraroga

11. VEGA VINIGRAHA (Suppression of Natural urges)

Suppression of natural urges like Jrumha, ashru, hikka, kshudha, etc. causes strain to eye leading to weakness of tissues.
Probable occupation: Students having continuous lectures, working under boss, meetings.
Probable Dosha-dushti: Tridosha
Probable diseases: Trudoshaj Netravikara.

12. ATISWEDA (Excessive sudation of eye)
Only mrudu sweda is advised in Netrarogas. In diseases like Timira, Swedana is contraindicated.
Probable occupation: Working in coal mines, cooking.
Probable Dosha-dushti: Pitta and rakta.
Probable Disease: Pittaj Abhishyanda.

13. DHOOMA NISHEVANATH (Excessive exposure to smoke)
Probable habits and occupations: Smoking, carbon dioxide from vehicles, factories.
Probable Dosha-dushti: Vata and Pitta
Probable diseases: Cataract, Macular degeneration, Uveitis.

14. CHARDHIRVIGHATATH (Suppressing the urge of vomiting)
Suppressing the urge of vomiting / nausea causes strain to eye.
Probable Dosha-dushti: Vata
Probable disease: Eye lesions (Kushta)

15. VAMAN ATIYOGATH (Excessive Vaman therapy)
Excessive Vaman therapy causes protrusion of eyeball.
Probable Dosha-dushti: Vatavruddhi, Kapha and Pitta kshaya

Probable diseases: Retinal detachment, Sub-conjunctival hemorrhage.

16. BHASHPAGRAHATH (Suppressing tears during grief)
Vitiated vayu obstructs the doshas to produce diseases of lacrimal apparatus.
Probable Dosha-dushti: Kapha and Vata
Probable diseases: Epiphora, blocked tear duct.

17. SUKSHAMA NIREEKSHANATH (Watching minute objects for longer duration)
This causes strain to ciliary muscles and lens.
Probable habits and occupation: Working with Computers, reading
Probable Dosha-dushti: Vata
Probable disease: Dry eye syndrome, accommodation problem.

DISCUSSION

Roga hetu gives knowledge of the disease, so understanding the hetu has its prime importance in diagnosing and treating the disease. Just following the hetus will not lead to disease, it gives prodromal symptoms first, then disease. Here we have tried to analyze Netraroga hetus explained by Acharya Sushruta, there are few more hetus explained by different authors as well. Present day lifestyle choices i.e. low activity level, sedentary lifestyle and progressive weight gain contributes significantly to the risk of developing the metabolic syndrome, which consequently have their ill effect on the most vital organ eye. If the above said hetus is followed once or twice may not lead to disease but if any of the above
said hetu is practiced for longer duration excessively will lead to diseases.

CONCLUSION:
Various lifestyle exposures are found closely associated with eye diseases. Their causes are pursued to be the result of metabolic changes influenced by processes of growth and ageing. Day and night are similar for a blind person and all the wealth in the world seems to be of no use. Hence to lead a desired life, one should always try to protect the eyes and for preventing it, rationale changes in lifestyle, food habits can be advised.

REFERENCES:

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